Amendments to the Claims

1. (Previously presented): The method for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of said compound; and

(b) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

2. (Original): The method of claim 1 wherein the ratio of the vapor to gas is controlled by measuring and regulating the flow of said gas.

3. (Original): The method of claim 2 wherein the ratio of vapor to gas is also controlled by regulating the rate of vaporization.

4. (Original): The method of claim 1 wherein the ratio of vapor to gas is controlled by regulating the rate of vaporization.

5. (Previously presented): The method of claim 2 wherein the ratio of vapor to gas is controlled by a patient regulating the flow rate of the gas.

6. (Previously presented): The method of claim 5 further comprising using an annunciating signal to alert a patient that the flow rate of gas is outside a desired range.

7. (Original): The method of claim 5 wherein the ratio of vapor to gas is controlled by regulating the rate of vaporization.

8. (Original): The method of claim 7 wherein the vaporization rate is controlled by changing the energy transferred to said compound during step (a).

9. (Original): The method of claim 4 wherein the vaporization rate is controlled by changing the energy transferred to said compound during step (a).

10. (Original): The method of claim 1 wherein the ratio of vapor to gas is controlled by regulating the gas at a desired rate, monitoring the gas flow rate and stopping energy transferred to said compound during step (a) in the event the desired flow rate is not maintained.

11. (Previously presented): The method of claim 10 further comprising using an annunciating signal to alert a patient if said compound is not being vaporized.

12. (Original): The method of claim 4 wherein said compound is moved in a heating-vaporization zone during step (a) and the vaporization rate is controlled by changing the rate said compound is moved into the zone.

13. (Original): The method of claim 11 wherein the ratio of vapor to gas is controlled by regulating the gas flow to a maximum flow rate and stopping the compound from being vaporized in step (a) if a minimum flow rate is not maintained.

14. (Original): The method of claim 1 wherein said compound is deposited onto a substrate prior to step (a).

15. (Original): The method of claim 1 wherein said compound is vaporized at a temperature below the boiling point of said compound by passing a gas across the surface of said compound.

16. (Original): The method of claim 1 wherein said particle size is in the range of about 1 to about 3 microns.

17. (Original): The method of claim 1 wherein said particle size is in the range of about 10 to about 100 nanometers.

18. (Original): The method of claim 1 wherein said gas is air.

19. (Previously presented): The method of claim 1 wherein said compound is selected from the group consisting of cannabinoid extracts from cannabis, THC, ketorolac, fentanyl, morphine, testosterone, ibuprofen, codeine, nicotine, Vitamin A, Vitamin E acetate, Vitamin E, nitroglycerin, pilocarpine, mescaline, testosterone enanthate, menthol, phencaramide, methsuximide, eptastigmine, promethazine, procaine, retinol, lidocaine, trimeprazine, isosorbide dinitrate, timolol, methyprylon, etamiphyllin, propoxyphene, salmetrol, vitamin E succinate, methadone, oxprenolol, isoproterenol bitartrate, etaqualone, Vitamin D3, ethambutol, ritodrine, omoconazole, cocaine, lomustine, ketamine, ketoprofen, cilazaprol, propranolol, sufentanil, metaproterenol, pentoxapylline, captopril, loxapine, cyproheptidine, carvediol, trihexylphenadine, alprostadil, melatonin, testosterone proprionate, valproic acid, acebutolol, terbutaline, diazepam, topiramate, pentobarbital, alfentanil HCl, papaverine, nicergoline, fluconazole, zafirlukast, testosterone acetate, droperidol, atenolol, metoclopramide, enalapril, albuterol, ketotifen, isoproterenol, amidarone HCl, zileuton, midazolam, oxycodone, cilostazol, propofol, nabilone, gabapentin, famotidine, lorazepam, naltrexone, acetaminophen, sumatriptan, bitolterol, nifedipine, phenobarbital, phentolamine, 13-cis retinoic acid, droprenilamine HCl, amlodipine, caffeine, zopiclone, tramadol HCl, pirbuterol, naloxone, meperidine HCl, trimethobenzamide, nalmefene, scopolamine, sildenafil, carbamazepine, procaterol HCl, methysergide, glutathione, olanzapine, zolpidem, levorphanol, buspirone and mixtures thereof.

20. (Original): The method of claim 1 wherein said compound is heated to a temperature for a period of time to cause substantial vaporization.

21. (Original): The method of claim 20 wherein said period of time is no greater than about 2 seconds.

22. (Original): The method of claim 20 wherein the period of time is in the range of about 1 millisecond to 2 seconds.

23. (Original): The method of claim 1 wherein said gas is mixed at a closely controlled flow rate to mix the compound evenly into the gas.

24. (Original): The method of claim 20 wherein the mixing is done to prevent an unacceptable increase in the gas temperature.

25. (Original): The method of claim 24 wherein the gas temperature increase is maintained at no greater than about 15°C.

26. (Original): The method of claim 24 wherein the gas flow rate is maintained substantially constant.

27. (Original): The method of claim 26 wherein a laminar gas flow across the surface the compound is maintained.

28. (Original): The method of claim 24 wherein the gas flow across the surface is highly turbulent.

29. (Original): The method of claim 14 wherein a thin film of said compound is deposited on said substrate and said gas is swept across the film.

30. (Original): The method of claim 1 wherein said compound is heated in a container and the resulting vapor is passed from the container into a gas stream through at least one mixing nozzle or orifice.

31. (Original): The method of claim 29 wherein said compound is heated by moving said substrate through an alternating magnetic field to inductively heat the substrate.

32. (Original): The method of claim 31 wherein said substrate is a metallic foil.

33. (Original): The method of claim 32 wherein said substrate is a stainless steel foil.

34. (Original): The method of claim 29 wherein said substrate has a low thermal conductivity value.

35. (Original): The method of claim 33 wherein said compound is deposited onto said stainless steel foil at a thickness of no greater than about 10 microns.

36. (Original): The method of claim 14 wherein the deposited compound has a surface area of about 1 to about 10 cm^2.

37. (Original): The method of claim 31 wherein the alternative magnetic field is maintained less than about 1MHz.

38. (Original): The method of claim 31 wherein the frequency of said field is maintained between about 100 and about 300 kHz.

39. (Currently amended): The method ~~of claim 31~~, for generating an aerosol comprising the steps of:

(a) depositing a thin film of a physiologically active compound onto a substrate

(b) heating the physiologically active compound to vaporize at least a portion of said compound by moving said substrate through an alternating magnetic field to inductively heat the substrate, wherein ~~a ferrite core is used to control~~ the shape of said alternating magnetic field is controlled by a ferrite core; and

(c) mixing the resulting vapor with a gas that is swept across the thin film, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

40. (Original): The method of claim 39 wherein said substrate has a plurality of sections that are heated sequentially.

41. (Original): The method of claim 40 wherein said ferrite core has a saturation value such that by changing the drive frequency and amplitude the resulting magnetic field expands to sequentially heat each of said sections and to vaporize the respective portions of said compound.

42. (Original): The method of claim 41 wherein said ferrite core has a variable air gap so that the resulting magnetic field expands to sequentially heat each of said sections and to vaporize the respective portions of said compound by varying the shape of said air gap of said ferrite core.

43. (Original): The method of claim 42 wherein the ferrite core is a toroid shape with a slit cut through it.

44. (Original): The method of claim 1 wherein said physiologically active compound is deposited onto a thermally conductive substrate that is heated by transmitting a thermal energy gradient from one part of said substrate to other parts.

45. (Original): The method of claim 1 wherein said compound is contained in a heating-vaporization zone having a restricted cross-sectional area such that the resulting vapor is rapidly mixed into said gas flowing through said zone in a ratio that results in the desired particle size after a stable concentration of particles in the gas is reached.

46. (Original): The method of claim 45 wherein said particle size is in the range of about 1 to 3 microns.

47. (Original): The method of claim 45 wherein said particle size is in the range of about 10 to about 100 nanometers.

48. (Currently amended): The method ~~of claim 45, wherein~~ for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound, contained in a heating-vaporization zone having a restricted cross-sectional area, to vaporize at least a portion of said compound,

(b) mixing the resulting vapor rapidly with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) maintaining a ~~the~~ pressure drop of ~~the~~ restricted gas flow ~~is maintained~~ at no greater than 10 inches of water.

49. (Currently amended): The method ~~of claim 1 wherein said compound is~~ for generating an aerosol comprising the steps of:

(a) heating sequentially a physiologically active compound ~~heated~~ by changing the focus of photon energy in the vicinity of said compound to vaporize at least a portion of said compound; and

(b) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

50. (Currently amended): The method ~~of claim 1 wherein said compound is deposited~~ for generating an aerosol comprising the steps of:

(a) depositing a physiologically active compound on a substrate having a plurality of sections that are heated sequentially;

(b) heating said compound to vaporize at least a portion of said compound; and

(c) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

51. (Original): The method of claim 50 wherein each of said sections is heated with photon energy.

52. (Original): The method of claim 50 wherein each of said sections is heated with resistive heaters.

53. (Original): The method of claim 50 wherein each of said sections is heated by inductive means.

54. (Previously presented): The method for delivering an aerosol to a patient comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of said compound; and

(b) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) administering the resulting aerosol to a patient.

55. (Original): The method for delivering an aerosol to a patient comprising the steps of:

(a) continuously introducing a physiologically active compound into a heating zone to vaporize at least a portion of said compound;

(b) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) administering the resulting aerosol to a patient.

56. (Original): The method for delivering an aerosol to a patient comprising the steps of:

(a) depositing a physiologically active compound onto a substrate;

(b) sequentially heating parts of said compound to vaporize at least a portion of said compound;

(c) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(d) administering the resulting aerosol to a patient.

57. (Original): The method of claim 56 wherein said compound is deposited onto a thermally conductive substrate that is heated by transmitting a thermal energy gradient from one part of said substrate to other parts.

58. (Currently amended): The method ~~of claim 56, wherein said compound is sequentially heated~~ for delivering an aerosol to a patient comprising the steps of:

(a) depositing a physiologically active compound onto a substrate;

(b) heating parts of said compound to vaporize at least a portion of said compound by changing the focusing of photon energy onto said compound;

(c) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(d) administering the resulting aerosol to a patient.

59. (Currently amended): The method ~~of claim 56 wherein the~~ for delivering an aerosol to a patient comprising the steps of:

(a) depositing a physiologically active compound ~~is deposited on~~ onto a substrate having a plurality of sections that are heated ~~sequentially~~;

(b) heating parts of said compound to vaporize at least a portion of said compound;

(c) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(d) administering the resulting aerosol to a patient.

60. (Original): The method of claim 59 wherein each of said sections is heated with photon energy.

61. (Original): The method of claim 59 wherein each of said sections is heated with resistive heaters.

62. (Original): The method of claim 59 wherein each of said sections is heated by inductive means.

63. (Original): The method of claim 59 wherein the sections are heated by thermal radiation from a heating element.

64. (Original): The method of claim 59 wherein the sections are heated by dielectric heating.

65. (Original): The method for delivering an aerosol to a patient comprising the steps of:

(a) sequentially heating parts of a physiologically active compound to vaporize at least a portion of said compound;

(b) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) administering the resulting aerosol to a patient.

66. (Canceled).

67. (Canceled).

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121. (Canceled).

122. (Canceled).

123. (Canceled).

124. (Previously presented): The method for generating an aerosol comprising the steps of:

(a) depositing a physiologically active compound onto an electrically conductive mesh or screen carrier; and

(b) rapidly heating the carrier by passing a high current across the carrier to vaporize at least a portion of the compound, while simultaneously passing a gas through the carrier thereby mixing the resulting vapor with the gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

125. (Original): The method of claim 124 wherein the carrier is a single layer of stainless steel mesh.

126. (Original): The method of claim 124 wherein the carrier is made of multi layers of material.

127. (Original): The method of claim 126 wherein the stainless steel mesh is 200 mesh.

128. (Original): The method of claim 124 wherein the high current in step (b) is supplied by the discharging of a capacitor.

129. (Original): The method of claim 124 wherein the current supplied is for less than about 20 milliseconds.

130. (Original): The method of claim 124 wherein the current supplied is from between about 2 and about 10 milliseconds.

131. (Previously presented): The method for delivering an aerosol comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of said compound;

(b) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) administering the resulting aerosol to an organ or tissue of a patient.

132. (Original): The method of claim 131 wherein the aerosol is administered to the eye.

133. (Original): The method of claim 131 wherein the aerosol is administered to the skin.

134. (Original): The method of claim 131 wherein the aerosol is administered to the mucosa.